

Connected Corridors: Preparing You for the Future of California's Roads

The Wave of the Future is Here

D11 ROF/CMM
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San Diego, CA

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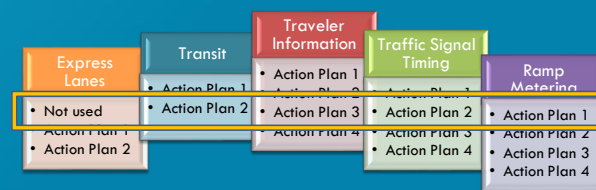
A photograph of ocean waves with white foam, positioned at the top of the slide. Below the image is a blue curved banner that serves as a background for the title.

Connected Corridors – California ICM

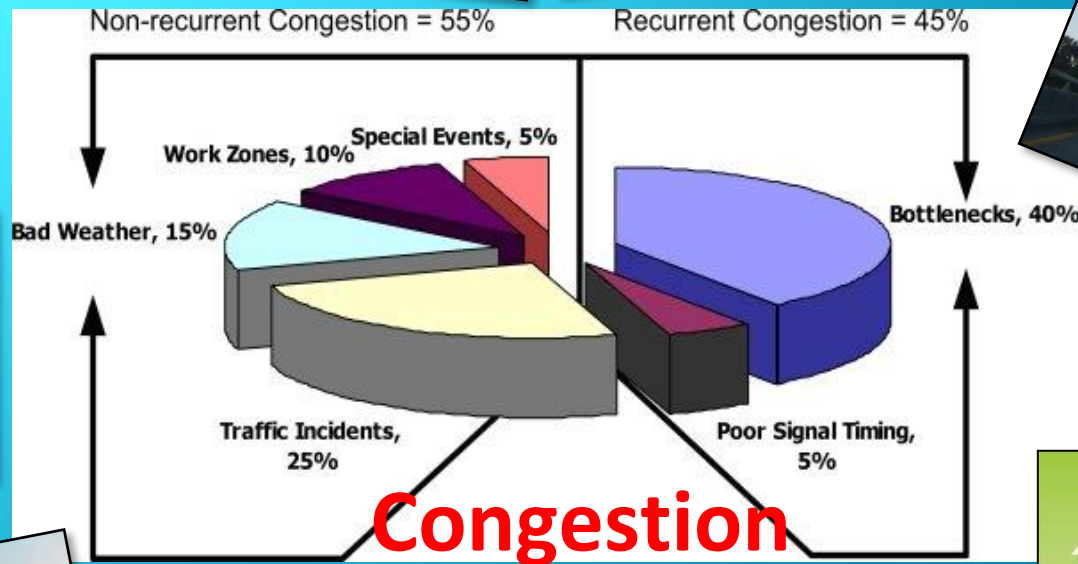
- The term Integrated Corridor Management (ICM) is well known and is primarily associated with a Federal Program that provided resources in two “demonstration” sites: Dallas (I-75) and San Diego (I-15).
- In part to differentiate Caltrans efforts from Federal efforts, the term Connected Corridors was created.
- The key to Connected Corridors or ICM is integrating Intelligent Transportation Systems (ITS) and management efforts with new concepts and relationships to develop a coherent multi-modal, multi-jurisdiction, corridor-wide transportation management system.

ICM Element Examples

- Enhanced data/information sharing
- Enhanced traffic monitoring systems
- Enhanced communication
- Freeway operations
- Arterial operations
- Enhanced traveler information
- Decision support system



WHY?



Caltrans Has Taken an Important Step!

- By applying what we have more effectively!

Caltrans Personnel

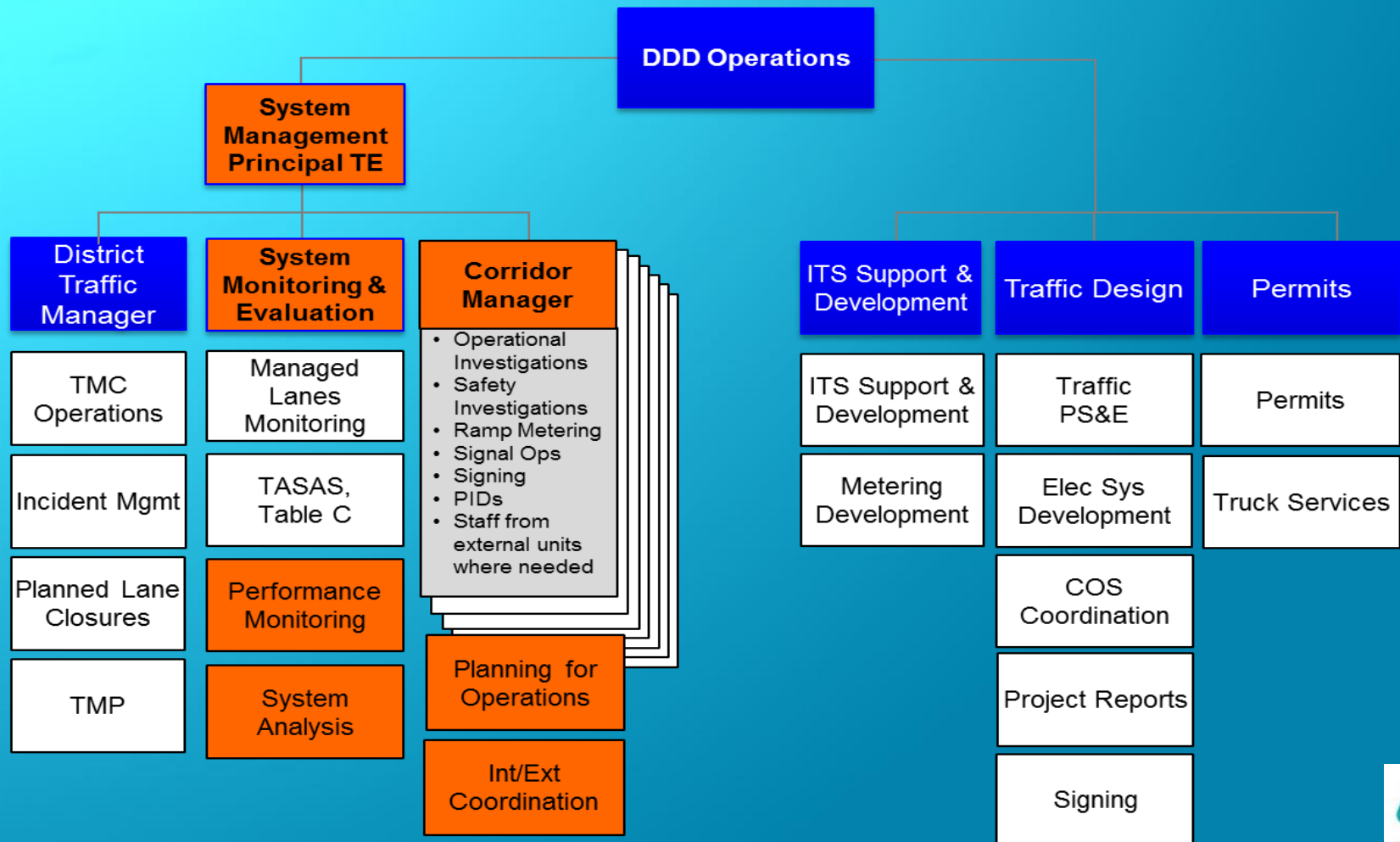




Transportation Management System (TMS) Pilot Corridors

- Traffic Operations – 20 positions to assist in improving the health of ITS equipment and system performance in two corridors:
 - I-210 – South
 - I-80 - North
- Maintenance - Positions to improve efforts to maintain Transportation Management System (TMS) elements statewide.

Caltrans District Reorganization – Essential





Additional Steps - Integration

Institutional Integration

Coordination to collaboration between various agencies and jurisdictions that transcends institutional boundaries.

Operational Integration

Multi-agency and cross-network operational strategies to manage the total capacity and demand of the corridor.

Technical Integration

Sharing and distribution of information, and system operations and control functions to support the immediate analysis and response.

Incident Management



Using – All Available Capacity





California Connected Corridors

Statewide Program

- 5 Corridors
 - I-210 D7 Los Angeles
 - I-80 D4 SF Bay Area
 - SR-57 D12 Orange County
 - I-110 D7 Los Angeles
 - SR-91 D12 Orange County
- Funding
- Standardization
- HQ Traffic Ops Reorganization

Pilot Projects

- D7 I-210
 - Decision Support System (DSS)
 - Forecasting & Modeling
 - Data Hub
 - Rules Engine
- D4 I-80
 - Overhead Gantries
 - Speed Advisories
- D12 SR-57/Anaheim Triangle
 - Data sharing
 - Special event management
- District Traffic Ops Reorganization



Caltrans' New Mission, Vision and Goals

MISSION

Provide a safe, sustainable, **integrated and efficient transportation system** to enhance California's economy and livability

VISION

A performance-driven, transparent and accountable organization that values its people, resources and partners, and meets new challenges through **leadership, innovation and teamwork**

GOAL 4

System Performance

Utilize leadership, collaboration and strategic partnerships to develop an integrated transportation system that provides reliable and accessible mobility for travelers

Caltrans Director's Policy DP-08

- Caltrans is committed to achieving full Transportation System Management and Operations (TSM&O).
- Strategies to optimize the performance of existing infrastructure.
- Coordinate business processes, systems and technology, performance measurement, culture, organization and workforce
- Collaboration and Partnership with transportation stakeholders to enhance mobility for people and goods on the State's transportation system.

California Department of Transportation		Serious drought. Help save water!
<hr/>		
Director's Policy		
Number:	DP-08-R1	
Effective Date:	TBD by DBFS Administrator	
Supersedes:	DP-08 (12/30/1992), DP-26 (08/2006)	
Responsible Program:	Traffic Operations	
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TITLE	Transportation System Management and Operations	
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POLICY	<p>In order to optimize California's transportation system's performance for all system users and modes, the California Department of Transportation (Caltrans) commits to effective Transportation System Management and Operations (TSM&O). TSM&O is the integration of projects, business processes, systems, technology, performance measurement, organization and workforce to actively and efficiently manage California's transportation system. In partnership with others, Caltrans uses TSM&O to preserve system capacity, while improving safety, security, reliability, and sustainability.</p>	
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INTENDED RESULTS		
<p>The intent of this policy is to promote TSM&O strategies as crucial tools in meeting Caltrans mission to provide a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability. TSM&O strategies are essential to a performance-based decision making process Caltrans will use to improve the efficient and effective operation of the transportation network. Examples of TSM&O strategies include:</p> <ul style="list-style-type: none">• Ramp metering• Traffic signal synchronization• Intelligent Transportation Systems (ITS)• Real time traveler information• Incident and special event management• Managed lanes• Traffic Management Plans (TMPs)• Dynamic lane management <p>In partnership with regional and local agencies, and other stakeholders, operational strategies form the basis of Integrated Corridor Management (ICM). TSM&O and ICM require proactive integration of the transportation systems to efficiently move people and goods along highly congested urban corridors. TSM&O and ICM strategies improve operations of multimodal transportation infrastructure. Successful TSM&O implementation requires Caltrans improve its capability in the following business elements:</p>		
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<small>"Provide a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability"</small>		



I-210 Connected Corridor Pilot

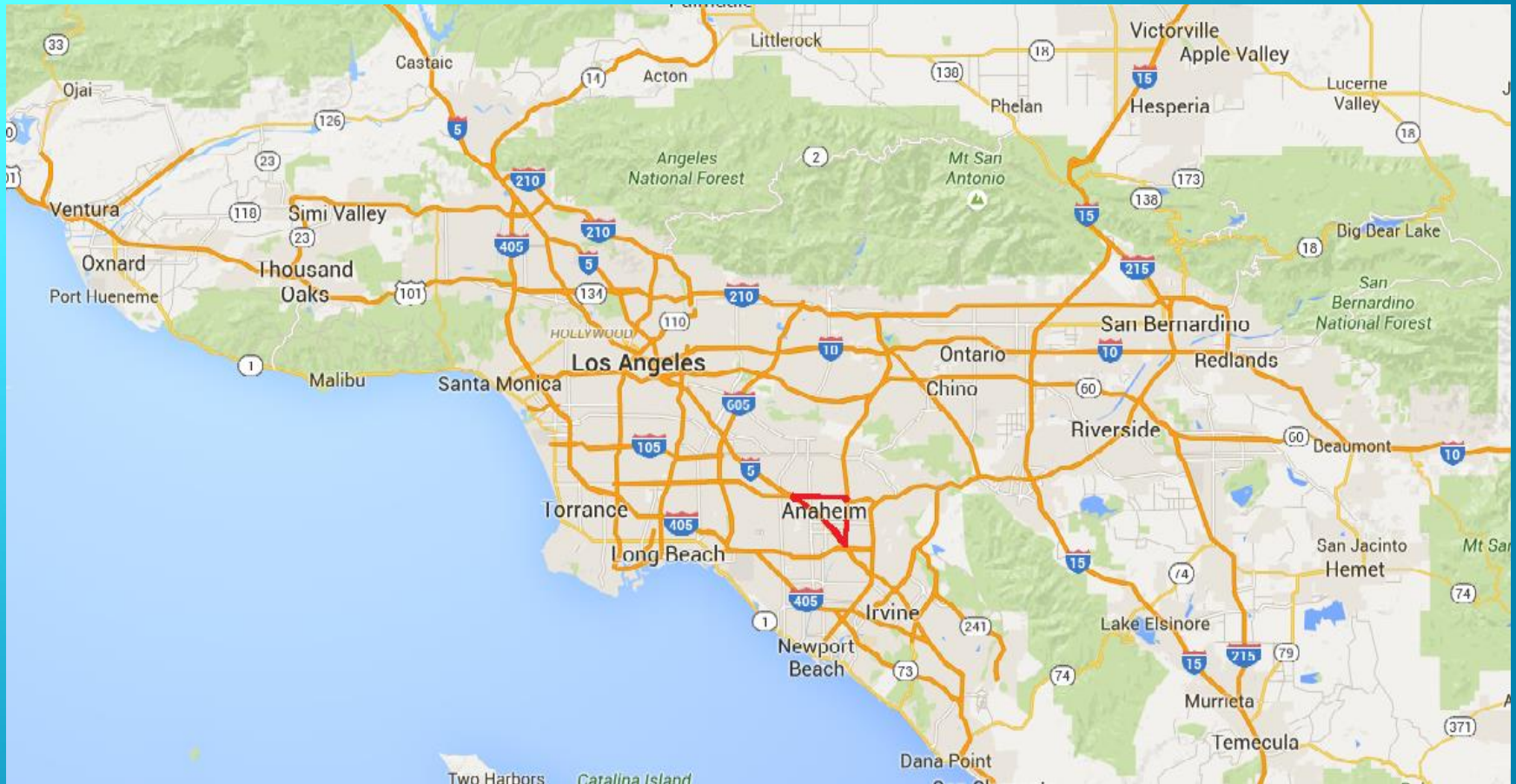




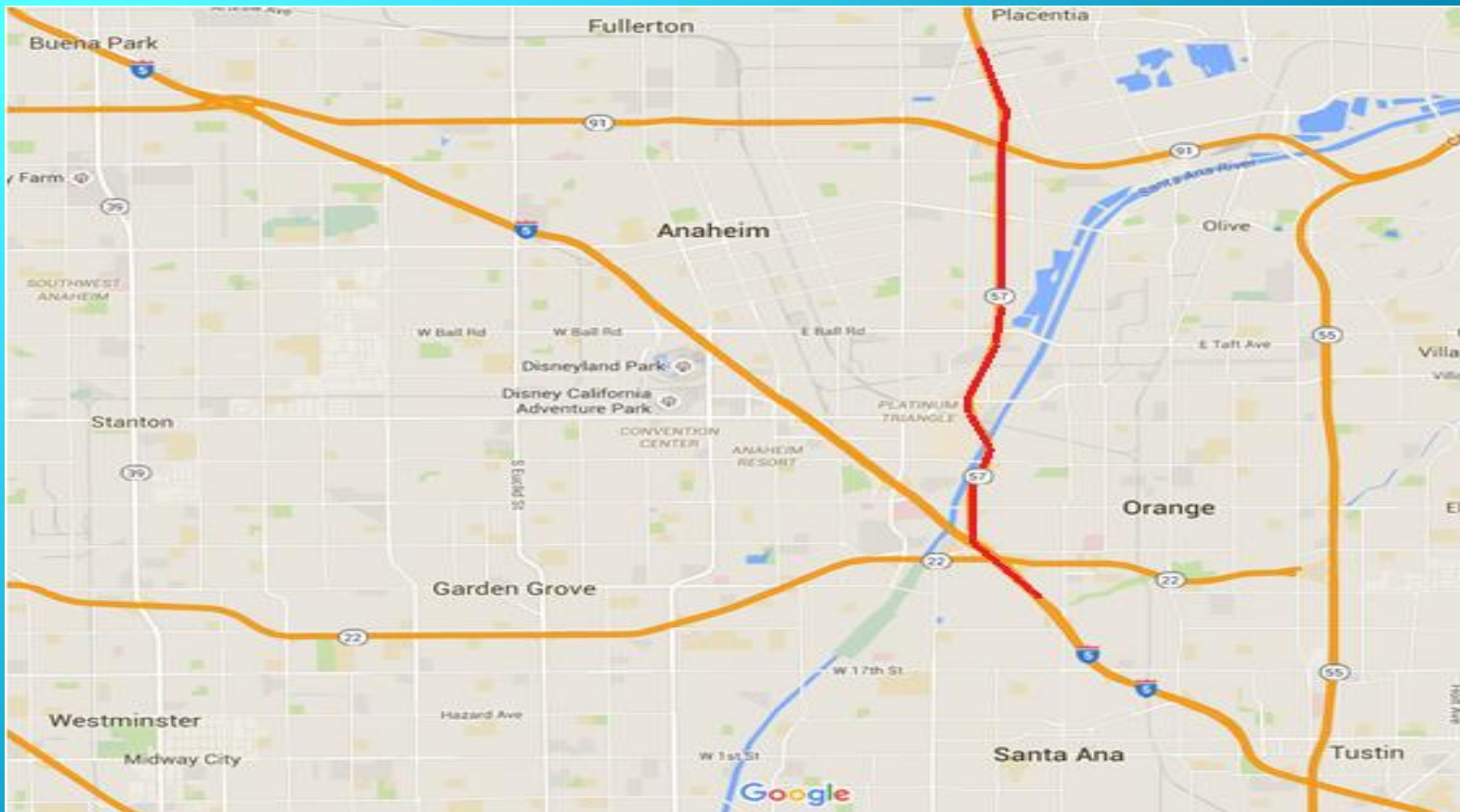
210 Update

- LA Metro Call for Projects – Funding for arterials
- SHOPP Funding – Funding for state highway
- Charter Signed by all Partners!
- ConOps Completed
- System Requirements and User Needs nearly complete (technical and institutional)
- High-level design underway

Anaheim Triangle



SR-57 – The First Leg of the Triangle



A photograph of ocean waves with white foam, used as a decorative header for the slide.

SR-57 Update

- All ITS Elements on the SR-57 (Signals, Ramp Meters, CCTV, CMS, Traffic Monitoring Stations) upgraded to IP (Internet Protocol) communications this year.
 - Allow for homogenous sharing of data between the Cities/County/Caltrans:
 - transmission of HD video and traffic data to smartphones/smart cars.
 - Audio Streams of traffic data to smartphones/smart cars.,
 - Vehicle to Infrastructure (V2I) applications.
 - Monitoring of Lighting Systems over the network.

California Connected Corridors

<http://connected-corridors.berkeley.edu/>

The Wave of the Future is Here
Ride the Wave!

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